

as in relation to another reference substrate. In this regard, given a color filter substrate and a TFT substrate, for example, the counter substrate will be the substrate that opposes the reference substrate. In other words, when the reference substrate of the example is a TFT substrate, the counter substrate will be the color filter substrate. Similarly, when the example reference substrate is the color filter substrate, the counter substrate will be the TFT substrate. Because claim 149 features a color filter substrate as the reference substrate, the counter substrate would properly be a TFT substrate, according to the embodiment to which the Examiner refers. Accordingly, the section 112 rejection of claims 149-156 and 159-161 is respectfully traversed.

Claims 177-178 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 177 and 178 have been amended to overcome the outstanding rejection. Reconsideration and withdrawal are thus respectfully requested.

Claims 149-156, 159-172, and 175-179 stand rejected under 35 U.S.C. 102(e) as being anticipated by Kurauchi et al. (U.S. 5,917,572). Applicants respectfully traverse this rejection because the cited reference does not disclose (or suggest) first and second protrusions where the first protrusions are formed on electrodes and of dielectric materials, which are features of independent claims 149 and 162 of the present invention, as amended.

Kurauchi discloses a liquid crystal display device including stacked colored layers between substrates. The stacked colored layers constitute color filters, and the gap between the substrates is defined by the height of the stacked colored layers. (See FIG. 23).

The Examiner has identified first protrusions 213 formed on the color substrate 211, and a second protrusion 214 as the stacked spacer defining the gap between substrates 161 and 211. On top of the colored layers 213 is formed a common electrode 215, which is separate and distinct from the colored layers 213. (See col. 18, lines 33-35). The layers 213 are not formed on the electrodes 215, but are clearly shown to be formed *under* the electrode 215.

In contrast, independent claims 149 and 162 of the present invention as amended recite, among other things, first protrusions formed on a color filter substrate, on which is also formed electrodes. The first protrusions are formed on the electrodes, include dielectric materials, and serve to regulate the azimuths of orientations of a liquid crystal sandwiched between two opposing substrates. Kurauchi does not disclose, or even suggest, these features of the present invention.

Kurauchi teaches that the electrode 215 is formed on the colored layers 213 whereas, in the present invention, the first protrusions are formed *on the electrodes* on the color filter substrate. This configuration of the present invention is thus opposite to that taught by Kurauchi. Moreover, Kurauchi does not teach or suggest that its colored layers include dielectric materials whereas, in the present invention, the independent claims recite that the first protrusions do include dielectric materials. Lastly, Kurauchi is silent regarding the orientation of liquid crystal molecules in relation to the colored layers 213 whereas, in the present invention, the first protrusions serve to regulate the azimuths of orientations of the liquid crystal. Because of all these differences between Kurauchi and the present

invention, the Section 102 rejection of claims 149-156, 159-172, and 175-179 based solely on Kurauchi is respectfully traversed.

Attached hereto is a marked-up version of the changed made to the claims by the current amendment. The attached Appendix is captioned "**Version with Markings to Show Changes Made.**"

Applicants submit that this Application, including claims 149-150, 152-163, and 165-179, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

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Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 149, 162, 177 and 178 have been amended as follows:

1 149. (Amended) A color filter (CF) substrate having a color filter and
2 electrodes and sandwiching a liquid crystal with a counter substrate, comprising:
3 first protrusions for regulating azimuths of orientations of said liquid
4 crystal, said first protrusions being formed on said electrodes and including dielectric
5 materials; and
6 second protrusions for defining a gap between said color filter substrate
7 and said counter substrate.

1 162. (Amended) A liquid crystal display device comprising:
2 a first substrate and a second substrate; and
3 a liquid crystal sandwiched between said first substrate and said second
4 substrate,
5 wherein said first substrate is a color filter (CF) substrate having a color filter,
6 and further
7 wherein said first substrate includes:

8 first protrusions for regulating azimuths of orientations of said liquid crystal,
9 said first protrusions being formed on said electrodes and including dielectric materials; and
10 second protrusions for defining a gap between said first and second substrates.

1 177. (Amended) A liquid crystal display device according to claim 162,
2 wherein tops of said second protrusions contact a portion of a [counter] surface of said
3 second substrate.

1 178. (Amended) A liquid crystal display device according to claim 162,
2 wherein tops of said second protrusions contact tops of third protrusions arranged on said
3 second substrate.